LED STAR SKY SERIES

Star Sky Pro MKII
(6x4m)

USER'S MANUAL

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THANK-YOU

First of all, we thank you for having chosen our LED Star Curtain Star Sky Pro MKII. This LED star curtain has been thoroughly tested and shipped in perfect condition before shipment. This device is a great and reliable fixture that can meet most of your requirements for entertainment markets. It can be just plug-and-play, and also can be controlled via standard DMX512 for sophisticated requirements.

All of our products are made on our business philosophy:

- we believe that satisfied customers are the key to a successful business and that controlled growth is the only path to sustained profitability.
- We believe that there is no point in supplying products that are substandard or inadequate. In the long run, it never pays

You can always rely on us.

Thanks again!
Highlite team

MEMO:

SPECIFICATIONS

Electrical	
Input voltage	85~132VAC, 176~264VAC, 47~63Hz
Power supply	100W
Power consumption	45W max.
Power fuse	2A
Drive current	10A max.
Photometric	
Light source	128 pcs ¢5 super bright LED, RGB 3-in-1
LED lifetime	80,000 hours
Effects	
	0-100% RGB dimming
	Fast strobe (speed adjustable), sound-activated
	10 pre-set programs, built-in color macros
	Auto run programs with speed adjustable
	8 groups of LED controllable separately for various effects
Control	
Control mode	DMX512; Auto run mode; Master/Slave mode; Sound activated mode
Control panel	LCD display, control panel lockable
DMX channel	Basic mode: 7 channels; Advanced mode: 28 channels;
DMX connector	3-pin and 5-oin XLR input/output ports
Physical & Construction	
Curtain material	Fire retardant, heavy duty cloth
Curtain size	6,000 x 4,000 mm
Curtain net weight	18.5 kg
Curtain color	Black
Controller material	Extruded aluminum
Controller box size	271L x 178W x 61H mm
Net weight	1.2 kg
Controller color	Black

NOTE: Due to improvement, the product specifications and this manual are subject to change without prior notice

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WARNING

Safety Instructions

This product guide contains important information about the safe installation and use of this device. Please read and follow these instructions carefully and keep this manual in a safe place for future reference.

When unpacking and before disposing of the carton, check there is no transportation damage before using the device. Should there be any damage caused by transportation, consult your dealer and do not use the apparatus.

The device is for indoor use only. Use only in dry locations. Keep this device away from rain and moisture, excessive heat, humidity and dust. Do not allow contact with water or any other liquids. The device is not designed or intended to be mounted directly on to inflammable surfaces.

The device is only intended for installation, operation and maintenance by qualified personnel.

The device must be installed in a location with adequate ventilation, at least 50cm from adjacent wall surfaces. Be sure that no ventilation slots are blocked.

Do not project the beam onto inflammable surfaces, minimum distance is 0.5m. ≥ 0.5m

Do not attempt to dismantle and/or modify the device in any way.

Electrical connection must only be carried out by qualified personnel.

Before installation, ensure that the voltage and frequency of power supply match the power requirements of the device.

It is essential that each device is correctly earthed and that electrical installation conforms to all relevant standards.

Do not connect this device to any other types of dimmer apparatus.

Make sure that the power-cord is never crimped or damaged by sharp edges. Never let the power-cord come into contact with other cables. Only handle the power-cord by the plug. Never pull out the plug by tugging the power-cord.

The device should always be installed with a secondary safety fixing. A safety cord is supplied for this; it should be attached as shown in "installing the device" section.

There is no user serviceable parts inside the device do not open the housing and never operate the device with the covers removed.

This device is not designed for permanent operation. Consistent operation breaks will ensure that the device will serve you for a long time without defects.

The maximum ambient temperature t_a = 45°C must never exceeded.

The relative humidity must not exceed 50% with an ambient temperature of 45°C.

If this device is operated in any other way other than the one said in this manual, this device may suffer damages and thus the warranty becomes void.

TROUBLE SHOOTING

This troubleshooting guide is just to help you to solve simple problems. Should problems not been solved by the following solutions, DO NOT open the unit, as this may damage the unit and the warranty will become void. The correct way is to consult the dealer, or return the unit to them

The common problems that users may encounter while using this unit are listed below with solutions:

Problems	Solutions
General low light output	Check if LED lenses are dirty; Clean the external optics using a soft cloth using normal glass cleaning fluid.
Curtain system does not respond to DMX control	Check if the DMX cables are connected properly, and if the DMX cables are wired correctly. Also check if the DMX controller box is addressed properly.
One LED in an LED group not ON	1. Check if LED lamp is broken, or becomes loose from its PC board. Replace LED lamp, or change the LED lamp kit; 2. Return the system to the dealer.
All LEDs in a LED group not ON	Check if data cable are faulty, repair or change the cable if necessary; Check if the LED drive board is faulty, repair or change the drive board.
All LEDs on a curtain not ON	Check if the power cable and data cable are properly connected; Check if the controller box functions well; If using Master/Slave mode, check if the Master fixture is properly set up.

Auto Run Mode

The LED star curtain can operate at auto run mode to play the preset programs. Please refer to "Setup menu" in Page 12 for setup. You can select the 10 built-in programs from the control panel. Each can play separately. Program running speed is adjustable by choosing speed from the control panel. Please refer to "Menu navigation" in page 11 for how to select the programs and running speeds.

Sound Activated Mode

The LED star curtain system can operate to music control thanks to the built-in microphone in the PRO-464 controller box. Please refer to "Setup menu" in Page 12 for mode setup.

MAINTENANCE

The operator has to make sure that the safety-related and machine-technical installations are to be inspected by an expert once a year in the course of an acceptance test.

The operator has to make sure that safety-related and machine-technical installations are to be inspected by a skilled person once a year.

The following points have to be considered during the inspection:

1. The electric power supply cables must not show any damages or material fatigue.
2. Make sure connections are clean and totally dry before linking equipments or supplying electric power.
3. All screws used for installing the device or parts of the device have to be tightly connected and must not be corroded.

Though this LED star curtain system almost requires no maintenance, however, doing maintenance such as frequent cleaning is always necessary.

The LED star curtain system contains external optical lenses; users should clean the lenses periodically to optimize light output. The cleaning frequency depends on the environment in which the curtain system is installed. Damp, smoky or particularly dirty surrounding can cause greater accumulation of dirt on the curtain and the lenses. Even in a clean type of surroundings, it is suggested to clean the external optics and the cloth at least once a month. It is suggested to use a soft cloth using normal glass cleaning fluid.

The following points have to be considered during the maintenance:

1. Unplug the system from main power.
2. Use a vacuum or dry compressed air and a soft brush to remove dust on the cloth.
3. Clean all external optics with a mild solution of glass cleaner or isopropyl alcohol, and a soft, lint free cotton cloth or a lens cleaning tissue.
4. Gently polish the external glass surfaces until they are free of haze and lint.

Always disconnect from the mains, when the device is not in use or before cleaning it or before attempting any maintenance work.

If you have any questions, don't hesitate to consult your dealer.

IMPORTANT:

The manufacturer will not accept liability for any resulting damages caused by the non-observance of this manual or any unauthorized modification to the device.

CAUTION! EYE DAMAGES!
Avoid looking directly into the light source,
Meant especially for epileptics!

Rigging

Concerning rigging, trussing and all other safety issues for this device, please follow the European and national guidelines.

Only the qualified technicians are allowed for the device installation,

The device must never be mounted for a possible swinging position. When rigging, de-rigging or doing services this device, always make sure that the surrounding area is clear.

IMPORTANT:

Improper installation can lead to serious damage to people and property.

If the device is not supplied with a plug, and has an open power cable, when connecting the device to the mains with a power plug, please ensure that the right color cable is connected to the right place. The following table is for your reference.

International	EU Cable	The U.K. Cable	US Cable	Pin
L	Brown	Red	Yellow/ Copper	Fase
N	Blue	Black	Silver	Nul
⏚	Yellow/Green	Green	Green	Earth

IMPORTANT

Please ensure that the device is always connected to the earth properly.

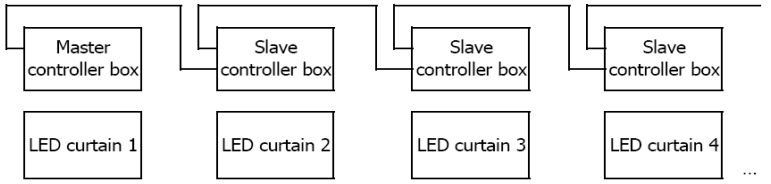
	9	Green	000-255	Group 2, from dark to light
	10	Blue	000-255	Group 2, from dark to light
	11	Red	000-255	Group 3, from dark to light
	12	Green	000-255	Group 3, from dark to light
	13	Blue	000-255	Group 3, from dark to light
	14	Red	000-255	Group 4, from dark to light
	15	Green	000-255	Group 4, from dark to light
	16	Blue	000-255	Group 4, from dark to light
	17	Red	000-255	Group 5, from dark to light
	18	Green	000-255	Group 5, from dark to light
	19	Blue	000-255	Group 5, from dark to light
	20	Red	000-255	Group 6, from dark to light
	21	Green	000-255	Group 6, from dark to light
	22	Blue	000-255	Group 6, from dark to light
	23	Red	000-255	Group 7, from dark to light
	24	Green	000-255	Group 7, from dark to light
	25	Blue	000-255	Group 7, from dark to light
	26	Red	000-255	Group 8, from dark to light
	27	Green	000-255	Group 8, from dark to light
	28	Blue	000-255	Group 8, from dark to light

Master/Slave Mode

This function allows you to link LED star curtain systems together to run preset programs without using a DMX console. In Master/Slave operation, one PRO-464 controller will act as the controlling unit and the rest will react to the built-in programs of the controlling unit. In this operation mode, the LED star curtain systems connected to the MASTER and SLAVE PRO-464 controller will operate synchronously.

Any controller box can act as a Master or as a Slave; however, only one fixture can be programmed to act as the "Master".

Master/Slave Mode



DMX Protocol

This LED star curtain system has two DMX control modes: 7 DMX channels and 28 DMX channels.

7 DMX channel: to directly control LED star curtain for color changing and running color macros.
28 DMX channel: to directly control RGB colors in each group (8 groups in total).

Standard mode	Extended mode	Function	DMX Value	Description
1	1	Master dimming	000-255	Dimming from dark to light
2	2	Strobe	000-009	Void
			010-255	Strobe 0-25Hz
3	3	Macro channel	000-049	RGB mode
			050-059	Black
			060-069	Red
			070-079	Green
			080-089	Blue
			090-099	Yellow
			100-109	Cyan
			110-119	Purple
			120-129	White
		Pre-set program	130-139	Program 1
			140-149	Program 2
			150-159	Program 3
			160-169	Program 4
			170-179	Program 5
			180-189	Program 6
			190-199	Program 7
			200-209	Program 8
			210-219	Program 9
			220-229	Program 10
		Macros	230-239	Color macros
			240-249	Music control
			250-255	void
4	4	Speed adjustable	000-004	Normal speed
			010-255	Speed from slow to fast
5		Red	000-255	From dark to light
6		Green	000-255	From dark to light
7		Blue	000-255	From dark to light
	5	Red	000-255	Group 1, from dark to light
	6	Green	000-255	Group 1, from dark to light
	7	Blue	000-255	Group 1, from dark to light
	8	Red	000-255	Group 2, from dark to light

PRODUCT OVERVIEW

Description

Star Sky Pro MKII is a full color LED star curtain system. It features 128 pcs super bright ¢5 RGB 3-in-1 LEDs. LEDs are scattered randomly on a 6X4M drape to make real star sky effects.

This LED Star Sky Pro MK II has its own control system - STAR SKY controller box PRO-464 and one driver box. PRO-464 controller is an interface to operate the whole system. It has a two-row LCD display from which users can configure the system easily. PRO-464 controller has 4 data output ports. There are three languages available in PRO-464 controller – English (in default), French and German. Users can select any of the languages by the LCD control panel.

Pro-464 controller box has 3-pin and 5-pin XLR DMX input and output ports. The drive board is installed inside the drape, it drives 8 groups LED in the drape. each group with 16 pcs RGB LED. So totally there are 128 pcs LED in the curtain.

This LED Star Sky Pro MKII has multiple control modes: universal DMX512, Master/Slave mode, Auto run mode and Sound Activated mode. The system can be programmed to perform multiple effects via any standard DMX consoles. There are two DMX control modes: 7 channels for easy and simple operation and 28 channels for sophisticated control.

This LED Star Sky Pro MKII has 10 pre-set effects which can be triggered separately or as one whole program. Built-in color macros vary from red, green, blue, white to cyan, purple, yellow and much more.... LEDs are divided into 8 groups in the curtain. For sophiscated operation, you can control each group separately at 28-channel DMX control mode.

This LED Star Sky Pro MKII can be connected one to another easily and quickly to make a larger back drape. Each curtain has Velcro connection at four sides for installation in any orientation.

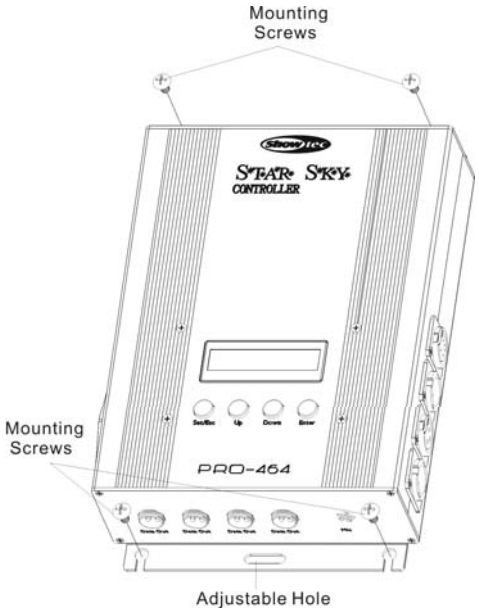
This LED Star Sky Pro MKII is designed for indoor applications, including back drapes for stage, theatre, TV studio, nigh club, hotel banqueting halls etc.

Items included in the package

1). The drape
2). STAR SKY controller PRO-464
3). Driver box
4). Power cable (1.5m long)
5). Data cable (3m long)
6). This manual

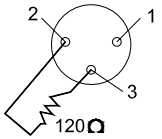
STAR SKY Controller PRO-464

STAR SKY controller PRO-464 is designed for easy mounting, it can be mounted on a flat surface or hanged on a wall or truss.



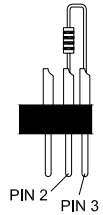
Mounting holes

STAR SKY controller PRO-464 allows easy control of the LED star curtain. It has a built-in power supply with on board DMX capability. PRO-464 controller has 4 data output ports that enable it to drive more than one curtain when necessary. It had 3-pin and 5-pin male and female XLRs, DMX addressable up to 512.



DMX TERMINATOR CONNECTION

Connect a 120Ω(OHM) resistor across pins 2 and 3 in an XLR plug and insert into the DMX OUT socket on the last unit in the chain.



OPERATING MODES

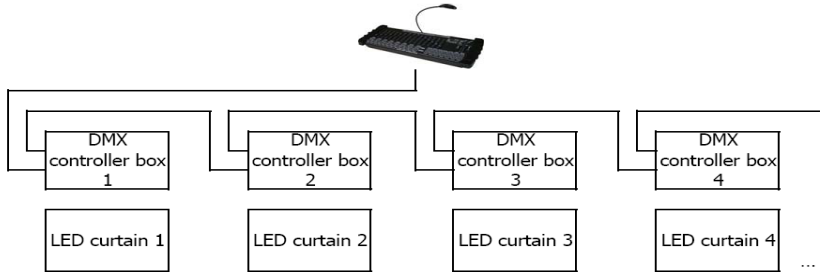
The fixture can work in the following operating modes:

- DMX control mode: this function will allow you to control individual LED star curtain system with a standard DMX 512 console.
- Master/Slave mode: one PRO-464 controller will work as the Master fixture; other PRO-464 controllers in the chain will work in synchronization with the Master fixture.
- Auto run mode
- Sound activated mode.

DMX Control Mode

Operating through a DMX console gives the user the freedom to create their own programs tailored to their own individual needs.

1. This function allows you to control each individual star curtain system with a standard DMX 512 console.
2. This device has two DMX control mode: 7 DMX channels and 28 DMX channels. Please refer to following sections for DMX channel details.
3. You can configure the fixture, in case DMX signal breaks, to stop running or hold on running current programs or to auto run mode or go automatically to music control. Please refer to "DMX menu setup" in page 13.
4. To run the star curtain system in DMX mode, plug in PRO-464 controller box via the XLR connector to any standard DMX console. To set up DMX address, please refer to the instructions in "**LCD Display Setup"**.



DMX Address Setup

Each fixture must be given a DMX address so that the correct device responds to the correct control signals. This DMX address is the channel number from which the device starts to "listen" to the digital control information being sent out from the controller.

Connect all your Star Sky controller PRO-464 in series using standard DMX512 data cable. Please refer to "**DMX Menu Setup**" in "**LCD Display Setup**"

DMX Cable Requiremets

This LED star curtain system can be controlled via standard DMX-512 protocol. It has two DMX control modes: 7 DMX channels and 28 DMX channels. You need to use a standard 3-pin or 5-pin XLR connector for data input and output.

3-pin XLR

5-pin XLR

If you are using your own cables, be sure to use standard two conductor shielded cable. Your cables should be made with a male and female XLR connector on either end of the cable. Also remember that DMX cable must be daisy chained and cannot be split.

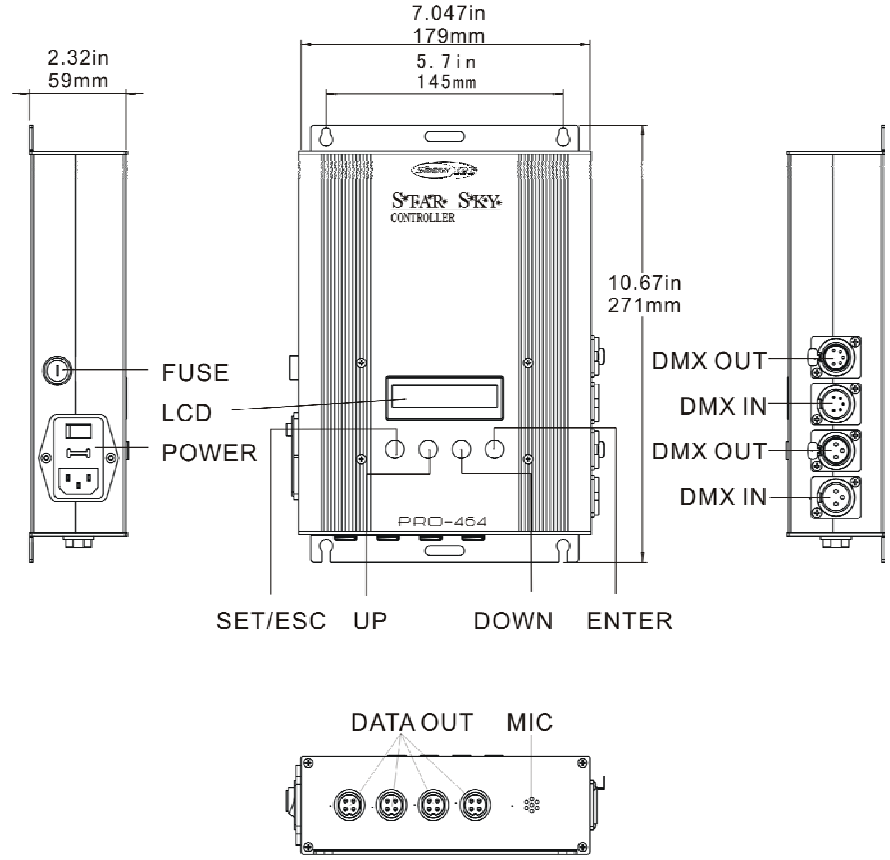
To ensure proper DMX data transmission, when using several DMX fixtures, try to use the shortest cable path. The order in which fixtures are connected in a DMX chain does not influent the DMX addressing. For example, a fixture assigned a DMX address as 1 may be placed anywhere in a DMX line, at the beginning, or at the end, or anywhere in the middle. When a fixture is assigned a DMX address as 1, the DMX controller understands to send DATA assigned to address 1 to that fixture, no matter where it positioned in the DMX chain.

DMX Terminator

In DMX Controller mode, at the last controller box in the chain, the DMX output has to be connected with a DMX terminator. This prevents electrical noise from disturbing and corrupting the DMX control signals.

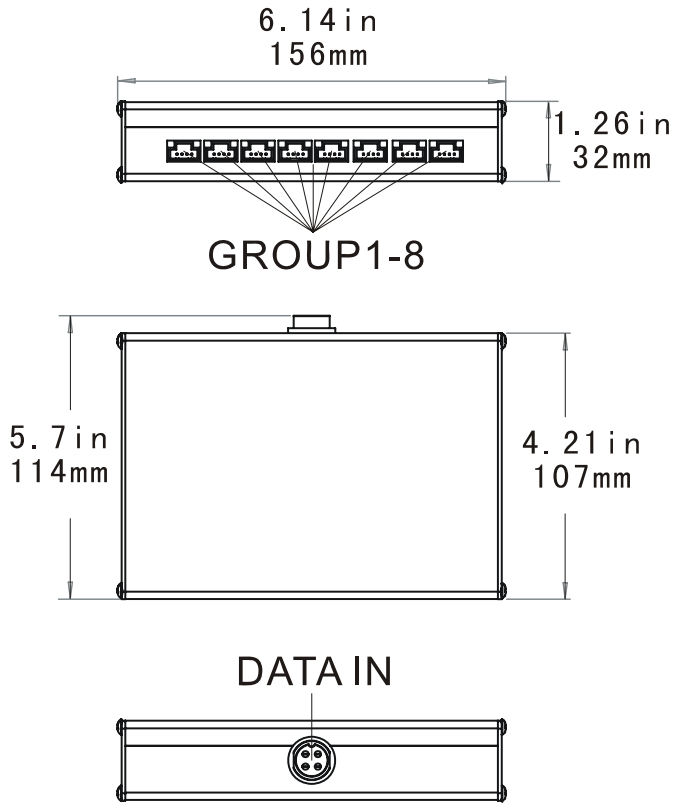
The DMX terminator is simply an XLR connector with a 90 - 120Ω (ohm) 1/4 watt resistor connected across pins 2 and 3 of a male XLR connector (DATA+ and DATA-). This terminator is then plugged into the output socket on the last fixture in the daisy chain to terminate the line. Using a cable terminator will decrease the possibilities of erratic behavior.

The connections are illustrated below.



Driver Box

The driver box has 8 data input ports which connect to each of the LED groups in the curtain.



- Strobe 000
- Red 1 000
- Green 1 000
- Blue 1 000
- Red 2 000
- Green 2 000
- Blue 2 000
- Red 3 000
- Green 3 000
- Blue 3 000
- Red 4 000
- Green 4 000
- Blue 4 000
- Red 5 000
- Green 5 000
- Blue 5 000
- Red 6 000
- Green 6 000
- Blue 6 000
- Red 7 000
- Green 7 000
- Blue 7 000
- Red 8 : 000
- Green 8 000
- Blue 8 000
- DimmerMode
  - RGB Mode
  - Group Mode

Program Menu

- Dimmer 000
- Strobe 000
- Speed 000

Macro Menu

- Macro Steps:08
- Step 01
  - Program 1
  - Program 2
  - .....
  - Program 18
- Step 02 the same as Step 01
- ....
- Step 62 the same as Step 01

├Clear Display
│ ├Always On
│ └Delay Off
├Key Lock
│ ├Lock: [On] Off
│ └Lock: On [Off]
├Information
│ ├Showtec Star Sky
│ ├info@showtec.info
│ ├Soft version 1.0
│ └Time: hh:mm:ss
└Machine Timer
├This Time:0000M
├TotalTime:0000H
└Clear Total
├ClearTotal:OK
└ClearTotal:NO

DMX Menu Setup

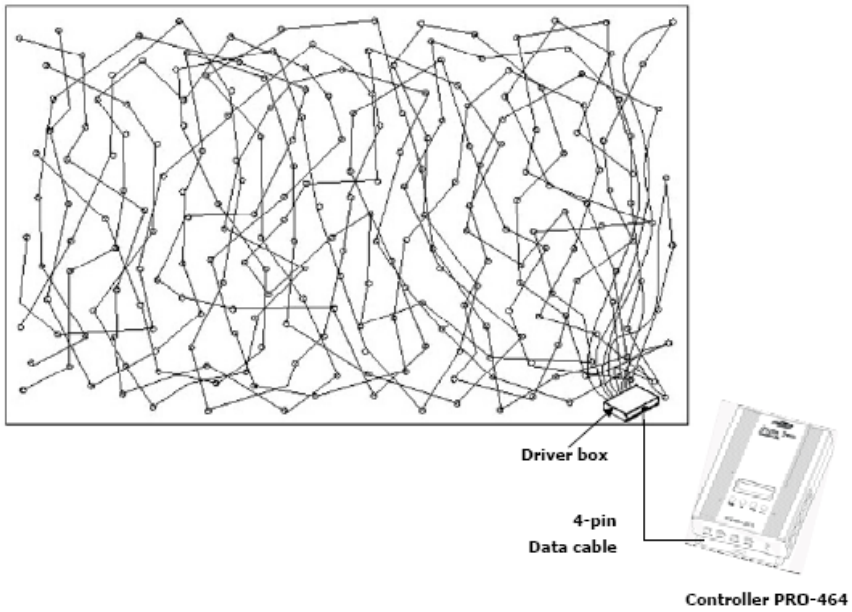
├DMX Address:001
├Channels Select
│ ├Sel:[7Ch] 28Ch
│ └Sel: 7Ch [28Ch]
└DMX Break *(to select how you like the fixture to run when DMX signal breaks)*
├Stop Run *(the fixture will black out)*
├Hold Run *(the fixture will hold on running current program)*
├Auto Run *(the fixture will star auto run mode)*
└Sound Run *(the fixture will run sound activated mode).*

Dimmer Menu (two modes)

RGB Mode:
Dimmer Menu
├Dimmer 000
├Strobe 000
├ Red 000
├Green 000
├ Blue 000
└DimmerMode
├RGB Mode
└Group Mode

Group Mode:
Dimmer Menu
├Dimmer 000

Whole system overview:



LED STAR SKY PRO MKII SETUP

Power Supply

Before plugging the fixtures in, make sure that the source voltage in your area matches the required voltage for your fixtures. You should be sure that your fixture voltage matches the wall outlet voltage before attempting to operate your fixtures. Incorrect voltage input might damage the fixture seriously.

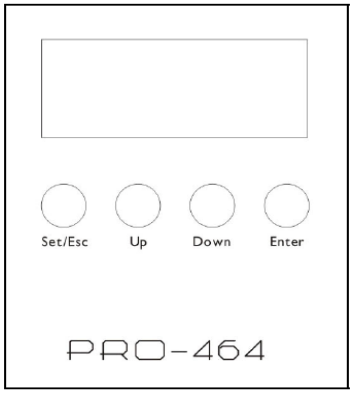
The power supply is assembled in the STAR SKY controller PRO-464. It matched 85~132VAC, 176~264VAC. Input voltage has been set up properly for your area before shipment.

LCD Display Setup

The device is equipped with an LCD display. LCD display can be set up to turn off while the device is running. LCD is set up to turn off in default 30 seconds after the last menu setup operation. LCD display can be waked up by pressing any button. At DMX mode, you can also wake up the LCD display by changing DMX signal.

LCD display is lockable. This function is set up OFF in default. You can activate this function to avoid unwanted LCD setup by other people. To unlock the LCD display, just press 1(ESC) 3(UP) 2(DOWN) 4(ENT).

There are 4 press buttons under the LCD display: <**MENU**>, <**ENTER**>, <**UP**> and <**DOWN**>.



【Set/Esc】 Menu selection or return to previous menu

【 Up 】Scroll "UP" through the menu list to increase the value of the current function

【Down】Scroll "DOWN" through the menu list to decrease the value of the current function

【Enter】Enter the current menu or confirm the current function value

Menu Navigation:

DN↓↑UP
Set menu←SET← DMX mode →ENT→DMX menu
DN↓↑UP
Set menu←SET← Black →ENT→dimmer menu
DN↓↑UP
Set menu←SET← Red →ENT→dimmer menu
DN↓↑UP
Set menu←SET← Green →ENT→dimmer menu
DN↓↑UP
Set menu←SET← Blue →ENT→dimmer menu
DN↓↑UP
Set menu←SET← Yellow →ENT→dimmer menu

DN↓↑UP
Set menu←SET← Cyan →ENT→dimmer menu
DN↓↑UP
Set menu←SET← Purple →ENT→dimmer menu
DN↓↑UP
Set menu←SET← White →ENT→dimmer menu
DN↓↑UP
Set menu←SET← Program1 →ENT→dimmer menu
DN↓↑UP
Set menu←SET← Program2 →ENT→dimmer menu
DN↓↑UP
Set menu←SET← Program3 →ENT→dimmer menu
DN↓↑UP
Set menu←SET← Program4 →ENT→dimmer menu
DN↓↑UP
Set menu←SET← Program5 →ENT→dimmer menu
DN↓↑UP
Set menu←SET← Program6 →ENT→dimmer menu
DN↓↑UP
Set menu←SET← Program7 →ENT→dimmer menu
DN↓↑UP
Set menu←SET← Program8 →ENT→dimmer menu
DN↓↑UP
Set menu←SET← Program9 →ENT→dimmer menu
DN↓↑UP
Set menu←SET← Program10 →ENT→dimmer menu
DN↓↑UP
Set menu SET← Macro →ENT→Macro menu
DN↓↑UP

Setup menu

Set Menu
├Language
| ├English
| ├French
| └German
├Reload Default
| ├ [On] Off
| └ On [Off]
├Master & Alone
| ├[Master] Alone
| └ Master [Alone]
├Auto & Sound
| ├[Auto] Sound
| └ Auto [Sound]